

Claims

1. Device for detecting a parameter representative of a state associated with the glazing of a motor vehicle including a module (20) further consisting:
- 5 - of means (E1) for emitting at least one electromagnetic beam (F1) towards one face (AV) of the glazing, and
- 10 - of means (R) for receiving at least a part of the beam returned by the said face, characterized in that the module includes at least one insert (I1, I2) at least partly implanted into the thickness e of the glazing, provided with a surface (S1, S2; S11) substantially opposite the said face (AV, AR) and substantially reflecting to the beam (F1), in
- 15 such a way that the beam, from emission to reception, undergoes a plurality of reflections in the thickness of the glazing, between the surface (S1, S2; S11) of the insert (I1) and the face (AV, AR) of the glazing.
- 20 2. Device according to Claim 1, characterized in that the emitting means include at least one emitting source (E1) applied against one of the faces (AR) of the glazing.
3. Device according to one of Claims 1 and 2, characterized in that the emitting means include at least
- 25 one emitting source (E1) implanted into the thickness (e) of the glazing.
4. Device according to one of Claims 1 to 3, characterized in that the receiving means include at least
- 30 one sensor (R) for detecting the said beam part returned, and applied against one of the faces (AR) of the glazing.
5. Device according to one of Claims 1 to 4, characterized in that the receiving means include at least
- 35 one sensor (R) for detecting the said beam part re-

flected, and implanted into the thickness (e) of the glazing.

6. Device according to one of Claims 1 to 5, characterized in that the emitting means (E1, E2) are configured to emit a first electromagnetic beam (F1) intended to be at least partly returned by a front face (AV) of the glazing, as well as a second beam (F2) intended to be at least partly returned by a rear face (AR) of the glazing, with a view to detecting foreign substances (G, B) on the front and/or rear faces of the glazing (1).

7. Device according to Claim 6, characterized in that the module (20) includes at least one insert (I1, I2) in the thickness (e) of the glazing, equipped with a first reflecting surface (S1; S11) opposite the front face (AV), and with a second reflecting surface (S2; S12) opposite the rear face (AR), while the receiving means (R) are configured to receive at least parts of the first (F1) and second (F2) beams, which are reflected respectively by the front (AV) and rear (AR) faces.

8. Device according to Claim 7, characterized in that the emitting means include first and second sources (E1, E2) suitable for emitting the said first and second beams (F1, F2) respectively, while the receiving means include a sensor (R) for detecting the reflected parts of the first and second beams; and in that the first and second sources, as well as the said sensor, are applied against the same face (AR) of the glazing.

9. Device according to one of the preceding claims, characterized in that the module (20) includes a luminous-flux sensor, especially a solar-flux sensor, inserted into the thickness (e) of the glazing.

10. Device according to one of the preceding claims, characterized in that, the said glazing comprising a spacer (11) of chosen thickness (e'), the said module (20) is at least partly implanted into the thickness (e') of the said spacer (11).

11. Glazing of a vehicle, especially an automobile, characterized in that it includes, in its thickness, an insert (I1, I2) of a detection device according to one of the preceding claims.

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